LISTING OF CLAIMS

1.-84.   (Canceled)

85.   (Previously Presented) A method for managing a biological database, comprising:

   a.   receiving a set of biological sequences;

   b.   querying a plurality of databases with the set of biological sequences;

   c.   receiving from the plurality of databases query result data comprising immunohistological data, *in situ* hybridization data, functional data, expression data, and structural data;

   d.   storing the query result data in a biological database, wherein each sequence in the set of biological sequences is associated with a respective record comprising query result data from each of the plurality of databases;

   e.   periodically performing steps b-d;

   f.   receiving, from a user, a request to view a record of one of the set of biological sequences; and

   g.   displaying an executive summary of the record.

86.   (Previously Presented) The method of claim 85, wherein the set of biological sequences comprises a nucleic acid sequence, an amino acid sequence, or a combination thereof.

87.   (Previously Presented) The method of claim 85, wherein receiving the set of biological sequences comprises receiving the set of biological sequences from a user.

88.   (Previously Presented) The method of claim 85, wherein the query result data further comprise complementary deoxyribonucleic acid (cDNA) data, expressed sequence tag data, and pharmacology data.

89.   (Previously Presented) The method of claim 85, wherein the plurality of databases comprises two or more databases selected from a group consisting of one or more National Center for Biotechnology Information (NCBI) databases and one or more other externally curated and maintained specialized databases.

90. **(Previously Presented)** The method of claim 85, wherein periodically performing steps b-d comprises performing steps b-d daily.

91. **(Previously Presented)** The method of claim 85, further comprising performing one or more bioinformatics functions on the set of biological sequences or the query result data.

92. **(Previously Presented)** The method of claim 91, wherein the one or more bioinformatics functions comprise a sequence alignment, a gene identification, a protein identification structure prediction, a motif comparison, a biological text analysis, or a combination thereof.

93. **(Previously Presented)** The method of claim 85, wherein displaying an executive summary of the record comprises formatting the requested record for output to the user.

94. **(Previously Presented)** A method for managing a biological database, comprising:
   a. providing a plurality of databases;
   b. determining the version of each of the plurality of databases;
   c. determining if the version of each of the plurality of databases is a current version;
   d. downloading the current version of any of the plurality of databases that is not a current version;
   e. periodically performing steps b-d;
   f. receiving a set of biological sequences;
   g. querying the plurality of databases with the set of biological sequences;
   h. receiving from the plurality of databases query result data comprising immunohistological data, *in situ* hybridization data, functional data, expression data, and structural data;
   i. storing the query result data in a biological database, wherein each sequence in the set of biological sequences is associated with a respective record comprising query result data from each of the plurality of databases;

  j. periodically performing steps b-d;

  k. receiving, from a user, a request to view a record of one of the set of biological sequences; and

  l. displaying an executive summary of the record.

95. **(Previously Presented)** The method of claim 94, wherein the plurality of databases comprises two or more databases selected from a group consisting of one or more National Center for Biotechnology Information (NCBI) databases and one or more other externally curated and maintained specialized databases.

96. **(Previously Presented)** The method of claim 94, wherein periodically performing steps b-d comprises performing steps b-d daily.

97. **(Previously Presented)** The method of claim 94, wherein the set of biological sequences comprises a nucleic acid sequence, an amino acid sequence, or a combination thereof.

98. **(Previously Presented)** The method of claim 94, wherein receiving the set of biological sequences comprises receiving the set of biological sequences from a user.

99. **(Previously Presented)** The method of claim 94, wherein the query result data further comprise complementary deoxyribonucleic acid (cDNA) data, expressed sequence tag data, and pharmacology data.

100. **(Previously Presented)** The method of claim 94, further comprising performing one or more bioinformatics functions on the set of biological sequences or the query result data.

101. **(Previously Presented)** The method of claim 100, wherein the one or more bioinformatics functions comprise a sequence alignment, a gene identification, a protein identification structure prediction, a motif comparison, a biological text analysis, or a combination thereof.

102. **(Previously Presented)** The method of claim 94, wherein displaying an executive summary of the record comprises formatting the requested record for output to the user.

103. **(Previously Presented)** A system for managing a biological database, comprising:

a target database node, comprising a first memory and a first processor, wherein the first processor is configured to receive and store query result data in the biological database, wherein the biological database comprises a set of biological sequences and wherein the query result data comprises immunohistological data, *in situ* hybridization data, functional data, expression data, and structural data, further wherein the target database node is configured to receive, from a user, a request to view a record of one of the set of biological sequences and display an executive summary of the record;

a query node, comprising a second memory and a second processor, wherein the second processor is configured to periodically download and store a plurality of databases from an external network;

a functional node, comprising a third memory and a third processor, wherein the third processor is configured to periodically query the plurality of databases on the query database node with the set of biological sequences from the target database node and send query result data to the target database node; and

a network switch node, comprising a fourth memory and a fourth processor, wherein the fourth processor is configured to direct the receipt and storage of query result data in the biological database, the periodic download and storage of the plurality of databases, and the periodic query of the plurality of databases on the query database node.

104. **(Previously Presented)** The system of claim 103, wherein the set of biological sequences comprises a nucleic acid sequence, an amino acid sequence, or a combination thereof.

105. **(Previously Presented)** The system of claim 103, wherein the functional node is further configured to perform one or more bioinformatics functions on the set of biological sequences or the query result data and update the target database node.

106. **(Previously Presented)** The system of claim 104, wherein the one or more bioinformatics functions comprise a sequence alignment, a gene identification, a protein identification structure prediction, a motif comparison, a biological text analysis, or a combination thereof.

107. **(Previously Presented)** The system of claim 103, wherein the plurality of databases comprises two or more databases selected from a group consisting of one or more National Center for Biotechnology Information (NCBI) databases and one or more other externally curated and maintained specialized databases.

108. **(Previously Presented)** The system of claim 103, wherein the query node is further configured to periodically download and store a plurality of databases from an external network daily.

109. **(Previously Presented)** The system of claim 103, wherein the query result data further comprise complementary deoxyribonucleic acid (cDNA) data, expressed sequence tag data, and pharmacology data.

110. **(Previously Presented)** The system of claim 103, wherein each of sequences in the set of biological sequences is associated with a record comprising query result data from each of the plurality of databases.

111. **(Canceled)**

112. **(Previously Presented)** The system of claim 103, wherein the target database node is further configured to format the requested record for output to the user.